

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of

Mitja V. HINDERKS

Serial No.: 08/477,703

Filed: June 7, 1995

For: A FLUID WORKING DEVICE



Group Art Unit: 3747

Examiner: N. Kamen

October 25, 2001

APPEAL BRIEF TRANSMITTAL

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Transmitted herewith is appellant's Brief on Appeal, in support of the Notice of Appeal filed April 25, 2001, the period for response having been extended four (4) months by the petition for extension and petition fee filed October 24, 2001.

Attached is the \$160.00 Appeal Brief fee.

The Commissioner is hereby authorized to charge any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith to Deposit Account No. 08-0873.

Respectfully submitted,

Richard C. Harris

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the application of

Mitja V. HINDERKS

Serial No.: 08/477,703

Filed: June 7, 1995

For: A FLUID WORKING DEVICE

APPEAL BRIEF

On Appeal From Group Art Unit 2787

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I. REAL PARTY IN INTEREST

The real party in interest in this application and appeal is the inventor,
Mitja V. Hinderks.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

Claims originally filed: 1-20

Claims added: 21-194

Claims allowed: 54, 56, 60, 107, 111, 116, 117, 119, 120, 122, 124, 125,
127, 129, 130, 132, 134, 135, 137, 139, 140, 142, 144, 145, 147, 149, 150, 152,
154, 155, 157, 159, 160, 162, 164, 165, 167, 169-177, 179 and 181-183.

Claims cancelled: 1-53, 56-59, 72-74, 77, 79, 88, 93-97, 105, 109 and 110.

Claims objected to: 64, 65, 71, 81, 84, 85, 87, 100-102, 178 and 180.

Claims rejected: 61-63, 66-70, 75, 76, 78, 80, 82, 83, 86, 89-92, 98, 99,
103, 106, 108, 112-115, 118, 121, 123, 126, 128, 131, 133, 136, 138, 141, 143,
146, 148, 151, 153, 158, 161, 163, 166, 168 and 184-194.

Claims on appeal: 61-63, 66, 68-70, 75, 76, 78, 80, 82, 83, 86, 89-92, 98,
99, 103, 106, 108, 112, 115, 118, 121, 123, 126, 128, 131, 133, 136, 138, 141,
143, 148, 151, , 153, 156, 158, 161, 163 and 166.

IV. STATUS OF AMENDMENTS

All amendments during prosecution were entered, with the exception of the
Amendment filed after Final Rejection which was refused entry.

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V. SUMMARY OF THE INVENTION

The present invention relates to a device for the working of fluids in which a component reciprocates in a cylinder assembly which is composed of ceramic pieces held together by tubular fasteners, which ceramic pieces have an electric current therein and manufactured depressions in the component and cylinder assembly to enable fluid worked by the device to fill the depressions. The device has a housing of insulating material to restrict heat transfer from the device and means surrounding the cylinder assembly for passage of fluids therethrough which contains filamentary material.

VI. ISSUES

The issues in this appeal are the propriety or impropriety of the Examiner's rejection of claims 61-63, 66, 68-70, 75, 76, 78, 80, 82, 83, 86, 89-92, 98, 99, 103, 106, 108, 112, 115, 118, 121, 123, 126, 128, 131, 133, 136, 138, 141, 143, 148, 151, , 153, 156, 158, 161, 163 and 166.

VII. GROUPING OF CLAIMS

Claims 61, 66-70, 75, 76, 78, 80, 83, 86, 89-92, 108 have been grouped together and stand or fall together.

Claims 62, 63, 106, 131, 141, 146, 151, 156 and 161 have been grouped together and stand or fall together.

Claims 82, 103, 118, 128, 133, 136, 138, 143, 148, 153, 158, 163, 166 and 168 have been grouped together and stand or fall together.

VIII. ARGUMENT

The Amendment of April 25, 2001 should have been entered and the case passed to issue, or in the alternative, the appellant should have been given sufficient time to interview the Examiner to resolve issues. Neither was made available to the appellant.

The appellant objects to and appeals the prosecution of this case by the Patent Office in the period subsequent to April 25, 2001, as follows:

Richard Harris and the appellant have been working together for a long period to further a series of parallelly filed applications, of which this case is one, based on a parent case. During many years dealing with the present examiner and his predecessor, the appellant and his attorney have always strived to give proper consideration to Patent Office law, the examiner's arguments, to the citations involved and to always write claims which as clearly as they could distinguished over the prior art.

In the present case, the Examiner prepared a Final Rejection in October of 2000, in which three main claims and their dependent claims were allowed, four main claims and most of their dependent claims were rejected, with a few claims objected to.

The client and his attorney spent a great deal of time working on a response to this Final Rejection, giving every aspect the fullest consideration. The four rejected main claims were modified to meet the Examiner's objections and a

comprehensive response, complete with all arguments, was timely filed April 25, 2001.

The record of the client-attorney team is good. In the equally complex parallel cases, all claims were allowed, in one case before the present examiner, and in another case before a different examiner. The appellant understands that a third parallel case may soon have most claims allowed.

OBJECTIONS

The appellant objects to the Patent Office handling of the case as follows:

No response to the Amendment of April 25, 2001 was received. The attorney became concerned and made a telephone message inquiry to the Examiner's office. He later received a message that the case had been allowed in mid-September 2001. After no Notice of Allowance was received, several messages were left for the Examiner. (It is understood that he was away from the Office at that time for some period.)

On October 16., 2001, the appellant managed to speak to the Examiner about another case he was prosecuting directly. In passing, he mentioned that no Notice of Allowance had been received in the present case. While on the phone, the Examiner looked up the record on the computer. It eventually transpired that when he received the attorney inquiry, he had inadvertently punched in the wrong serial number (he used the 09/series), and so mistakenly informed the attorney of the allowance of case that had nothing to do with the present application. The inspection of the record of this case during the phone conversation suggested that

two Advisory Actions had been sent out, neither of which had been received. the Examiner faxed copies of these documents that day, copies of which are attached.

Attention is drawn to the fact that the first communication in May 2001 consists only of a cover sheet, without any work sheet(s) containing advisory material. The cover sheet has the attorney's correct address. The lack of receipt could have been caused for a number of reasons. The lack of delivery prompted the Office to send a second Advisory Action. However, that was incorrectly sent to the attorney's old address, last used perhaps five years ago, which also was not delivered. In addition to the Patent Office's incomplete/incorrect mailings of record, appellant additionally objects to the fact that aspects of the response were considered irrelevant, and that the advisory action essentially said the situation was unchanged since the Examiner's Final Rejection.

Reviewing the changes made to claim 61, where "assembled" was changed to "assembled and abutted," it is difficult to see how this could entail a new search. The disclosure has always been of assembled and abutted elements and the claims have related to elements assembled and held together in tension for years in this case. (It is difficult to see how they could not abut) and also for years in other parallel cases:

In claim 106, all the elements claimed remain unchanged, the only difference being a small change of phrasing (the "housing" became a "structure"). Would this warrant a new search?

In claim 118, the claimed device is now within a “structure.” This enclosing element, be it housing or structure, has been claimed in the present case for years and has been claimed for years in at least one of the other parallel cases.

One of the advisories indicated that the response might require further searches. Appellant did not think these would be necessary when drafting the claims. It seems very unlikely that further searches would be required in ALL FOUR of the amended claims. It would have been more appropriate for the advisory action to have indicated which claims required further searches, giving appellant an opportunity to withdraw those claims.

A further objection is that, under the circumstances, the applicant did not have an opportunity to meet with the Examiner to review outstanding issues. This is a very high page volume case and appellant sympathizes with the Examiner who has to dig into it, then get involved with many other cases, before getting back to appellant’s six months later. Appellant wants to get all cases to closure; so for the last half-hear or so, has indicated in writing and during phone conversations with the Examiner, the appellant’s readiness to travel to Washington for a meeting, either to explain aspects of the invention not entirely clear, or to negotiate claims that would be acceptable to all parties. It is our opinion that before issuing the Advisory Action, a meeting should have been arranged.

In most circumstances, an appeal would have been based on the claims that the Examiner finally rejected. In the present case, that is pointless, because appellant amended claims after Final Rejection to overcome the examiner’s

objections. An appellate body would reject a defense of the earlier rejected claims by citing our own modification. The present case is one of three parallel cases. One of the other two had all claims allowed and was subsequently abandoned. The other has by now had a substantial proportion of claims allowed.

All the features cited in each of the present case's four rejected main claims have been part of the claims of this case for years and have also been part of at least one of the parallel cases' claims for years. As such, they must already have been searched for in the preceding art.

IX. APPENDIX

The claims on appeal can be found in the appendix attached hereto.

X. CONCLUSION

In view of the foregoing, it is respectfully submitted that claims 61-63, 66, 68-70, 75, 76, 78, 80, 82, 83, 86, 89-92, 98, 99, 103, 106, 108, 112, 115, 118, 121, 123, 126, 128, 131, 133, 136, 138, 141, 143, 148, 151, 153, 156, 158, 161, 163 and 166 should be entered and allowed or entered and remanded to the Examiner for resolution.

Accordingly, it is respectfully requested that the Honorable Board of Appeals reverse the Examiner's position regarding the non-allowability of claims 61-63, 66, 68-70, 75, 76, 78, 80, 82, 83, 86, 89-92, 98, 99, 103, 106, 108, 112, 115, 118, 121, 123, 126, 128, 131, 133, 136, 138, 141, 143, 148, 151, 153, 156, 158, 161, 163 and 166 and the case be passed to an early issue, or in the alternative, remand the case to the Examiner for further consideration of the claims which

were refused entry due to the appellant's lack of time for consideration of the advisory for which he was not at fault.

Respectfully submitted,

A handwritten signature in cursive script that reads "Richard C. Harris".

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Attorney Docket No. RCH 22614-G-DIV

APPENDIX OF CLAIMS

61. A device for the working of fluids comprising at least one cylinder assembly and a component reciprocable therein, said component having two longitudinal extremities and at least one circumferential projection, said cylinder assembly having at least one internal circumferential depression in which said projection is positioned to reciprocate, said projection and depression forming a pair of torroidal fluid working chambers of cyclically variable capacity, said component having at least one internal passage for movement of fluids to or from said working chambers, said assembly including a multiplicity of elements of ceramic material held in contact with one another by at least one fastener loaded in tension, said component being composed of a multiplicity of elements of ceramic material held in contact with one another by at least one fastener loaded in tension.

62. The device of claim 61, including a housing in which said cylinder assembly is mounted.

63. The device of claim 62, wherein said housing is at least partially composed of thermally insulating material.

68. The device of claim 61, wherein said component is at least partly composed of ceramic material.

69. The device of claim 61, wherein said assembly is substantially of ceramic material.

70. The device of claim 61, wherein said assembly comprises at least one pair of substantially identical components arranged in mirror image relative to one another.

75. The device of claim 61, including means defining a volume for passage of fluids to or from said working chambers, said means surrounding at least a portion of said cylinder assembly.

76. The device of claim 61, including at least one fastener, said reciprocatable component comprising a multiplicity of elements, said elements being held in an assembled condition by said at least one fastener loaded in tension.

78. The device of claim 61, wherein said device is part of an internal combustion engine and said working chambers are combustion chambers.

80. The device of claim 78, including fuel delivery means mounted in said reciprocatable component.

82. The device of claim 75, including filamentary material contained in said volume.

83. The device of claim 61, including a rotatable shaft and a load transfer mechanism, said component being linked to said rotatable shaft by said load transfer mechanism.

86. The device of claim 83, wherein said mechanism includes at least one hinged element.

89. The device of claim 78, wherein said part of said internal combustion engine comprises one stage of a compound engine.

90. The device of claim 89, including a turbine stage to form a compound engine.

91. The device of claim 89, including a steam engine stage to form a compound engine.

92. The device of claim 89, including a Stirling engine stage to form a compound engine.

98. The device of claim 61, wherein said component has at least one surface defining manufactured depressions wholly fillable by fluids worked by said device.

99. The device of claim 61, wherein said cylinder assembly has at least one surface defining relatively small manufactured depressions wholly fillable by fluids worked by said device.

103. The device of claim 82, wherein said filamentary material includes material having catalytic effect to hasten chemical reaction in said working fluid.

106. A device for the working of fluids comprising a housing, at least one cylinder assembly having a circumferential depression and mounted in said housing and a component reciprocable in said assembly, said component having two open cylindrical ends and at least one circumferential projection reciprocable in said circumferential depression in said assembly to form at least one pair of torroidal fluid working

chambers of cyclically variable capacity, said component having at least one internal volume for passage of fluids to said working chamber, said housing being substantially of insulating material to restrict heat transfer from said assembly.

108. The device of claim 61, wherein at least one of said extremities in normal operation transfers loads associated with said working chambers.

112. The device of claim 61, wherein said fastener is of tubular form.

113. The device of claim 76, wherein said fastener is of tubular form.

115. The device of claim 68, including at least one electrical circuit within said ceramic material.

118. A device for the working of fluids comprising a cylinder assembly, a component reciprocable within said assembly, filamentary material, said component having at least one longitudinal extremity and at least one circumferential projection, said cylinder assembly having at least one circumferential depression in which said projection is positioned to reciprocate, said projection and depression defining a pair of torroidal fluid working chambers of cyclically variable capacity and means defining a volume for passage of fluids to or from said working chambers, said means surrounding at least a portion of said cylinder assembly, said volume containing said filamentary material.

121. The device of claim 118, including a housing, wherein said housing is of insulating material and at least partly surrounds said cylinder assembly.

123. The device of claim 118, including a device known as a scotch yoke mechanically linked to said component.

126. The device of claim 106, including at least one fastener, wherein said cylinder assembly includes a multiplicity of components of ceramic material held in assembled condition by said at least one fastener loaded under tension.

128. The device of claim 118, including at least one fastener, wherein said cylinder assembly includes a multiplicity of components of ceramic material held in assembled condition by said at least one fastener loaded under tension.

131. The device of claim 126, wherein said fastener is of tubular form.

133. The device of claim 128, wherein said fastener is of tubular form.

136. The device of claim 106, including at least one fastener of tubular form, said reciprocatable component comprising a multiplicity of elements, said elements being held in assembled condition by said fastener loaded in tension.

138. The device of claim 118, including at least one fastener of tubular form, said reciprocatable component comprising a multiplicity of elements, said elements being held in assembled condition by said fastener loaded in tension.

141. The device of claim 106, wherein said component is at least partly composed of ceramic material.

143. The device of claim 118, wherein said component is at least partly composed of ceramic material.

148. The device of claim 128, including at least one electrical circuit within said ceramic material.

151. The device of claim 106, wherein said assembly comprises at least one pair of substantially identical components arranged in mirror image relative to one another.

153. The device of claim 118, wherein said assembly comprises at least one pair of substantially identical components arranged in mirror image relative to one another.

156. The device of claim 106, including at least one small manufactured depression in said cylinder assembly surface to said working chambers and at least one small manufactured depression at a corresponding position in said component surface, said depressions wholly fillable by fluids worked by said device.

158. The device of claim 118, including at least one small manufactured depression in said cylinder assembly surface to said working chambers and at least one small manufactured depression at a corresponding position in said component surface, said depressions wholly fillable by fluids worked by said device.

161. The device of claim 106, wherein said device is part of an internal combustion engine and said working chambers are combustion chambers.

163. The device of claim 118, wherein said device is part of an internal combustion engine and said working chambers are combustion chambers.

166. The device of claim 106, including filamentary material and structure defining at least one volume for passage of fluids to or from said working chambers, said structure surrounding at least a portion of said cylinder assembly, said volume containing said filamentary material.